

Claims

- [c1] 1. A modular conveyor belt comprising:
- a series of rows of belt module pieces, each row including:
 - a first set of hinge eyes along a first end of the row;
 - a second set of hinge eyes along an opposite second end of the row;
 - a group of first module pieces arranged side by side in the row and forming at least some of the first and second sets of hinge eyes;
 - a complementary group of second module pieces arranged across the row and forming other of the first and second hinge eyes;
 - wherein the complementary group of second module pieces mates with the group of first module pieces to form a belt row;
 - and
 - a plurality of hinge pins;
 - wherein the first set of hinge eyes of a row are interleaved with the second set of hinge eyes of an adjacent row;

cent row and wherein hinge pins extending through the interleaved hinge eyes connect the first module pieces of a row to the second module pieces of the row and pivotably connect consecutive rows into a conveyor belt.

- [c2] 2. A modular conveyor belt as in claim 1 wherein the complementary group of second module pieces is stacked on the group of first module pieces.
- [c3] 3. A modular conveyor belt as in claim 1 wherein at least one of the second module pieces mates with portions of two side-by-side first module pieces.
- [c4] 4. A modular conveyor belt as in claim 1 wherein seams formed between adjacent first module pieces are offset laterally across the row from seams formed between second module pieces.
- [c5] 5. A modular conveyor belt as in claim 1 further comprising a component retained in place on the belt by the mating of the first and second module pieces.
- [c6] 6. A modular conveyor belt as in claim 5 wherein the component includes a roller.
- [c7] 7. A modular conveyor belt as in claim 1 wherein the first module pieces and the second module pieces are sub-

stantially identical in structure.

[c8] 8. A modular conveyor belt as in claim 1 wherein the belt is reversible.

[c9] 9. A conveyor belt, comprising:
a bottom layer of belt module pieces arranged end to end and side to side in a bricklay pattern with seams between adjacent side-by-side module pieces;
a top layer of belt module pieces arranged end to end and side to side in a bricklay pattern with seams between adjacent side-by-side module pieces,
wherein the top layer lies on the bottom layer, together forming rows of interleaved hinge eyes; and
a plurality of hinge pins extending through the hinge eyes of the top and bottom layers to connect the layers together into a conveyor belt.

[c10] 10. A conveyor belt as in claim 9 wherein the seams in the top layer are offset from the seams in the bottom layer to avoid continuous seams through both layers of the belt.

[c11] 11. A conveyor belt as in claim 9 wherein the belt is reversible top to bottom.

[c12] 12. A conveyor belt as in claim 9 wherein the top layer and the bottom layer meet along confronting planar

faces.

[c13] 13. A conveyor belt as in claim 9 further comprising a component sandwiched in place between the top layer and the bottom layer.

[c14] 14. A conveyor belt, comprising:
a bottom layer of belt module pieces arranged end to end and side to side in a bricklay pattern, the bottom layer extending in thickness from a bottom surface to a generally planar face with vertical seams through the thickness of the bottom layer between adjacent side-by-side module pieces;
a top layer of belt module pieces arranged end to end and side to side in a bricklay pattern, the top layer extending in thickness from a top surface to a generally planar face with vertical seams through the thickness of the top layer between adjacent side-by-side module pieces;
wherein the top layer mates with the bottom layer with the generally planar face of the top layer confronting the generally planar face of the bottom layer along a generally horizontal seam.

[c15] 15. A conveyor belt as in claim 14 further comprising a plurality of hinge pins and wherein the top layer and the bottom layer each include end-to-end rows of side-

by-side belt module pieces forming along opposite ends between adjacent rows aligned hinge eyes for receiving the plurality of hinge pins.

[c16] 16. A conveyor belt as in claim 14 further comprising a component sandwiched in place between the top layer and the bottom layer.

[c17] 17. A conveyor belt as in claim 14 wherein the vertical seams in the top layer are offset from the vertical seams in the bottom layer to avoid continuous vertical seams through both layers of the belt.

[c18] 18. A conveyor belt as in claim 14 wherein the belt is reversible top to bottom.